



Virginia
Regulatory
Town Hall

Proposed Regulation Agency Background Document

Agency Name:	Virginia Department of Mines, Minerals and Energy
VAC Chapter Number:	4 VAC 25-125
Regulation Title:	Regulations Governing Coal Stockpiles and Bulk Storage and Handling Facilities
Action Title:	Proposed
Date:	March 11, 2003

This information is required pursuant to the Administrative Process Act (§ 9-6.14:9.1 *et seq.* of the *Code of Virginia*), Executive Order Twenty-Five (98), Executive Order Fifty-Eight (99), and the *Virginia Register Form, Style and Procedure Manual*. Please refer to these sources for more information and other materials required to be submitted in the regulatory review package.

Summary

Please provide a brief summary of the proposed new regulation, proposed amendments to an existing regulation, or the regulation proposed to be repealed. There is no need to state each provision or amendment or restate the purpose and intent of the regulation; instead give a summary of the regulatory action and alert the reader to all substantive matters or changes. If applicable, generally describe the existing regulation.

The Regulations Governing Coal Stockpiles and Bulk Storage and Handling Facilities are designed to ensure the health and safety of mine workers where heavy equipment is used to handle coal and coal related materials on stockpiles and in other bulk material storage facilities with underlying feeders. They will serve to protect mine workers from potential health and safety hazards through the implementation of equipment use procedures and by controlling the use of heavy equipment around coal and material stockpiles and bulk storage and handling facilities located at coal mine facilities that use underlying coal feeders. Regulation of the safe use of equipment associated with coal stockpiles and bulk storage and handling improves the overall health and safety of miners by ensuring the safe use and maintenance of equipment used in conjunction with underground coal mines while encouraging productive mining.

Basis

Please identify the state and/or federal source of legal authority to promulgate the regulation. The discussion of this statutory authority should: 1) describe its scope and the extent to which it is mandatory or discretionary; and 2) include a brief statement relating the content of the statutory authority to the specific regulation. In addition, where applicable, please describe the extent to which proposed changes exceed federal minimum requirements. Full citations of legal authority and, if available, web site addresses for locating the text of the cited authority must be provided. Please state that the Office of the Attorney General has certified that the agency has the statutory authority to promulgate the proposed regulation and that it comports with applicable state and/or federal law.

Section 45.1-161.3 of the Code of Virginia states that the Department has the power, to promulgate regulations necessary or incidental to the performance of duties or execution of powers conferred under Title 45.1 of the Code of Virginia and other relevant chapters. These regulations may be promulgated by the Department, the Chief, or the Director, as appropriate. They must be promulgated in accordance with the provisions of Article 2 (§ [2.2-4007](#) et seq.) of the Administrative Process Act.

Sections 45.1-161.106 and 45.1-161.254 authorize the Chief of the Department of Mines, Minerals and Energy, Division of Mines to promulgate regulations necessary to ensure the safe and healthy working conditions in underground and surface coal mines. Specifically, such regulations are to address the storage or disposal of any matter or material extracted or disturbed as the result of an underground or surface coal mining operation, used in the mining operation, or used for the refinement or preparation of the materials extracted from the coal mining operation.

Section 45.1-161.107 of the Coal Mine Safety Act directs the Chief to consider a number of factors in regulatory development; the federal mine safety law, standards generally recognized by the coal mining industry or set by recognized professional organizations and the results of research and other information that is available regarding the highest degree of protection and the latest technology.

The Code of Virginia, including the above citations may be viewed at <http://leg1.state.va.us>.

The Office of the Attorney General has certified that the Department of Mines, Minerals and Energy has the statutory authority to promulgate the proposed regulation. This regulation comports with the Code of Virginia.

Purpose

Please provide a statement explaining the need for the new or amended regulation. This statement must include the rationale or justification of the proposed regulatory action and detail the specific reasons it is essential to protect the health, safety or welfare of citizens. A statement of a general nature is not acceptable, particular rationales must be explicitly discussed. Please include a discussion of the goals of the proposal and the problems the proposal is intended to solve.

This new regulation as being proposed is designed to help ensure the safe and effective operation and use of heavy equipment on and around coal mine sites where coal is stockpiled and stored. This proposed regulatory action is necessary to help meet industry and worker needs to improve worker safety on and around coal handling and storage facilities at coal mine sites. The Regulations Governing Coal Stockpiles and Bulk Storage and Handling Facilities provides worker protection through the implementation of safe working procedures and practices where there were previously none.

Substance

Please identify and explain the new substantive provisions, the substantive changes to existing sections, or both where appropriate. Please note that a more detailed discussion is required under the statement providing detail of the regulatory action's changes.

The Regulations Governing Coal Stockpiles and Bulk Storage and Handling Facilities are new regulations designed to ensure the health and safety of mine workers where underlying coal feeders and heavy equipment are used to handle coal and coal related materials. These regulations will serve to protect mine workers from potential health and safety hazards through the implementation of equipment use procedures and by providing guidance on the use of heavy equipment around coal and material stockpiles and bulk storage and handling facilities where underlying coal feeders are used at coal mine facilities, and by establishing safety standards for practices at coal and bulk material storage facilities such as silos, bins, and hoppers.

This regulation is being promulgated as a means to help prevent fatal and non-fatal injuries and equipment damage. An initial draft of the regulation has been developed with input from the Virginia Coal Mine Safety Board and the federal Mine Safety Health Administration (MSHA).

Industry and government technical information and regulatory guidance used by the federal MSHA and the State of West Virginia are proposed to be incorporated into the regulation.

Issues

Please provide a statement identifying the issues associated with the proposed regulatory action. The term "issues" means: 1) the primary advantages and disadvantages to the public, such as individual private citizens or businesses, of implementing the new or amended provisions; 2) the primary advantages and disadvantages to the agency or the Commonwealth; and 3) other pertinent matters of interest to the regulated community, government officials, and the public. If there are no disadvantages to the public or the Commonwealth, please include a sentence to that effect.

The proposed regulatory action presents differing issues associated with coal mine operations and work performed around stockpiles and storage facilities, resulting in advantages and disadvantages to both the public and to operators of coal mine sites.

Health and safety benefits and cost savings for the public as well as mine operators are end products of a safe work environment. Examples of these would be insurance savings, minimal loss of time from work due to injuries, equipment repair and replacement cost savings. Coal mine workers and operators that are able to work safer and in good health generally are more productive citizens, essentially leading to increased revenue to the worker, the community, and the operator.

The Regulations Governing Coal Stockpiles and Bulk Storage and Handling Facilities set the safety standard for all operators and coal miners to preserve the health and safety of the coal mine worker when operating heavy equipment on coal mine sites. Though this action would be advantageous to operators, mine workers and communities, there is a disadvantage to implementation of the proposed regulation. This would be a one-time cost of equipment to the operator or upgrades to equipment. Incidental costs may surface in the form of training by the operator to its employees.

It is important to note that many operators have presently implemented equipment modifications and implemented changes to policies and procedures prior to this regulation because it adds to a safer work environment. There would be no added cost resulting from the implementation of this proposed regulation to these mine operators.

Fiscal Impact

Please identify the anticipated fiscal impacts and at a minimum include: (a) the projected cost to the state to implement and enforce the proposed regulation, including (i) fund source / fund detail, (ii) budget activity with a cross-reference to program and subprogram, and (iii) a delineation of one-time versus on-going expenditures; (b) the projected cost of the regulation on localities; (c) a description of the individuals, businesses or other entities that are likely to be affected by the regulation; (d) the agency's best estimate of the number of such entities that will be affected; and e) the projected cost of the regulation for affected individuals, businesses, or other entities.

(a) The projected cost to the state to implement and enforce the proposed regulation:

- (i) Fund Source/Fund Detail: General Fund; 0100: Special Fund; 0218
- (ii) Budget Activity:
 - Program/subprogram; Individual Safety, 55500
 - Program/subprogram; Mine inspections, 55503
- (iii) One-time cost vs. on-going expenditures: n/a

Because many of these requirements are presently in place, it is not expected to be of additional cost impact to the state.

(b) The projected cost of the regulation on localities: No cost to localities.

(c) A description of the individuals, businesses or other entities that likely are to be affected by the regulation:

- Coal Companies
- Coal Miners
- Equipment Manufacturers

(d) The agency's best estimate of the number of such entities that will be affected:

- 6 Coal Companies under DMME jurisdiction
- 156 Coal Miners
- 14 Equipment Manufacturers

(e) The projected cost of the regulation for affected individuals, businesses, or other entities:

Collectively, coal companies under DMME jurisdiction that have not at present, implemented changes to coal handling equipment should encounter a one-time cost of approximately \$800,000. The individual company cost varies from \$50,000 to \$320,000 and is dependent on the number of pieces of equipment necessary to be fitted.

The Division of Mines has attempted to determine the number and types of existing equipment which would need to be retrofitted and the cost of adding these improvements to new equipment. This was done by talking to coal operators and equipment manufacturers.

The cost of new equipment, which is built to the specifications of the operator for a particular mine, can be made to meet these requirements. There could be a cost increase for operators purchasing new equipment. An accurate estimate is difficult because of the cost of converting equipment varies and is dependent on the extent of the improvements.

Savings. Savings will result from reduced time lost to injury, accidents and loss of life. Having heavy equipment, feeders and coal handling equipment that is made safer for use will result in insurance savings as well. The greatest saving will be through the prevention of the loss of the lives of personnel. Similar safety standards that have been implemented in West Virginia have proven to save lives where accidents have occurred.

Detail of Changes

Please detail any changes, other than strictly editorial changes, that are being proposed. Please detail new substantive provisions, all substantive changes to existing sections, or both where appropriate. This statement should provide a section-by-section description - or cross-walk - of changes implemented by the proposed regulatory action. Where applicable, include citations to the specific sections of an existing regulation being amended and explain the consequences of the proposed changes.

The following are not changes since this is a new regulation, but a section by section description of the proposed regulation.

4 VAC 25-125-10. Definitions. The following words and terms used in this chapter have meanings as defined in the Code of Virginia and according to industry standards.

4 VAC 25-125-20. General Provisions for Coal Stockpiles and on Stockpiles with Underlying Feeders.

This section addresses handling of stockpiles of coal through the use of underlying feeders. The underlying feeder is usually a conveyor type, piece of equipment that moves coal from or to a coal storage area, usually a stockpile. The section requires that coal storage areas will be designed and maintained safely and that authorized individuals will visually inspect surrounding ground areas for unsafe conditions.

The section also addresses visibility concerns when working around stockpiles. It requires that training should be provided to employees that have specific responsibilities around stockpiles of coal.

4 VAC 25-125-30. Safety Precautions on Stockpiles with Underlying Feeders. This section requires that telephone or equivalent two-way communications shall be established between equipment operators working on stockpiles and those persons who are operating conveyors, feeders, hoppers or load out facilities drawing from those stockpiles. Communication shall be maintained in order to keep such equipment operators advised of the possibility of bridged material over a cavity in the stockpile. Contact shall be maintained with the equipment operators during draw down activities (Draw down activities constitute when coal stockpiles have coal siphoned from the base, usually by a feeder/conveyor).

The section disallows travel by foot directly on areas of coal stockpiles where underlying feeders are in place, except on an emergency basis; and then only under direct supervision of a certified foreman and when secured by an safety line, with feeders locked and tagged out. Operators will be required to have and post a Stockpile Safety Plan that is approved by the Chief.

The plan shall outline procedures to protect the health and safety of mobile equipment operators working on a stockpile or coal storage area directly over an area where underlying coal feeders are in place.

The section will also require operators to retro-fit and reinforce equipment doors, windows, frames or supports that is for stockpile use. The equipment is also required to be fitted with a self rescuer breathing apparatus and remote controls to cease feeder operation in the event of an accident. *The requirement for retro-fitting or fitting new equipment or new safety features has the greatest cost impact to the operators, but will save the most lives in the event of an accident.*

Lastly, specific procedures will be required of equipment operators to prevent inadvertent discharge of material, warning signs will be required to be posted, visual indicators will be required to be used (lights, etc), and two way communications shall be provided.

4 VAC 25-125-40. Storage bins, bunkers, hoppers, and silos. Where unconsolidated bulk materials are stored, handled or transported, storage bins, bunkers, hoppers, and silos shall be equipped and maintained with mechanical devices or other effective means of handling materials to prevent entrapment by caving or sliding of materials. This will be done by equipping with supply and discharge operating controls, providing suitable walkways or passageways, and providing proper training and safety equipment for personnel working on and around said areas.

Alternatives

Please describe the specific alternatives to the proposal considered and the rationale used by the agency to select the least burdensome or intrusive alternative that meets the essential purpose of the action.

An alternative to the regulation was to not have regulations for coal mine operators that addresses work being done to handle and store coal. Because there have been fatalities and accidents resulting from a lack of clear standards that govern how to safely handle bulk coal and coal related materials, this alternative has been shown to not be effectively protecting the safety of coal miners that work around stockpiles with underlying feeders.

Various industry operators recognized the safety problems associated with the mishandling of bulk coal and materials and began implementing controls, procedures and safety precautions to protect workers. Because not all workers are being protected, consistency is needed in the industry to protect workers on all mine sites. Industry representatives were in agreement that there was a need for the regulation.

An alternative to having the Virginia regulation was to let federal MSHA regulate and monitor safety on and around areas where bulk coal and materials were being handled. Because MSHA lacked sufficient regulation in this area, the state was asked by industry to take initiative on promulgating regulations that would help to keep mine workers safe when handling bulk coal and materials.

The Department considered establishing less restrictive or more restrictive measures than are included in this initial draft. By considering input from industry and labor representatives, input from MSHA, and copies of similar regulations from other states DMME has been able to develop thorough regulations that enable industry flexibility and maintain the highest level of safety for mine operators and workers. More or less restrictive regulations would not maintain this balance.

Finally, an alternative to promulgating a new regulation would be to require use of remote controlled equipment to handle bulk coal and material stockpiles. This was found to be extremely costly to implement while not providing any substantial increase in safety over what is being proposed in this regulation.

Public Comment

Please summarize all public comment received during the NOIRA comment period and provide the agency response.

A general comment was received whether the regulation would apply to all stockpiles. The comment was directed at stockpiles of coal at electrical generation facilities. This regulation

would not apply to such facilities unless they are coal load out facilities where coal is being processed or if they have underlying feeders.

A second general comment was made regarding the use of the term “stockpile” and how it could be used to describe as little as two tons of coal. The DMME has developed this regulation for stockpiles with underlying feeders. The hazard exists for operators and mine workers at these locations where coal is drawn from underneath the stockpile, leaving voids and cavities that may collapse and engulf personnel and equipment. It is unlikely that miniscule sized coal piles would present such a hazard.

4 VAC 25-125-20, General Provisions for Coal Stockpiles and Stockpiles with Underlying Feeders

One commenter regarding 125-20 C., expressed concern who would be the responsible person that would inspect the stockpile dumping locations and whether it was in addition to the pre-shift examination. Their recommendation was to have the inspection done by a “qualified person”. After discussion and review, DMME accepted the suggestion but chose to use the term “authorized person”. This is a term widely used in the law and the regulation. The inspection may be performed in addition to the pre-shift examination, but the intent is to conduct the inspection when there will be operations conducted on stockpile dumping locations where underlying feeders are being used.

Two commenters expressed concern about the subjectivity of term “adequate illumination” used in 125-20 D. and how it may be interpreted. DMME agreed that the term may become confused and could be clarified. In its review DMME felt that it would best be addressed by changing the language to “sufficient illumination” to be consistent with the federal Mine Safety Health Administration.

4 VAC 25-125-20 F. One commenter asked if there was a window of time whereby a pre-shift exam of the stockpile area must be performed before entering the area; another asked if a certified person was necessary to conduct the examination. The DMME removed the section and the language after it amended 120-20 C. The inspection requirement was resolved when 125-20 C. was amended.

4 VAC 25-125-30, Safety Precautions for Stockpiles with Underlying Feeders.

A commenter asked how often contact with the operators will need to be initiated; 125-30 A. Previously, the language stated that, “communication shall be maintained in order to...”, DMME wanted to provide the operators with flexibility to stay in communication, therefore the language was changed to, “communication will be maintained as necessary”.

Two comments were received on section 125-30 B. One commenter stated that education and training could suffice in lieu of using a “lifeline” when traveling on stockpiles and that a “lifeline” may be a hazard in itself. Another commenter was unclear with what areas of stockpiles that a person may travel if any. The DMME, after review of past data, does not agree that only training and education would fully suffice to protect workers from being engulfed

within a coal stockpile. Added measures must be taken to protect workers that may travel onto stockpiles with underlying feeders and to prevent the individual from being engulfed into a coal stockpile. Those additional measures should be addressed in a stockpile safety plan. In the event of an emergency, an exception may be considered but only when safety lines are used and other precautions are taken. In addition, the DMME felt that using the term “lifeline” may be misleading and chose to clarify the language by changing it to “safety line”.

The second commenter wanted clearer language regarding travel “ directly on areas of coal stockpiles”. The department clarified this by adding, “where underlying feeders are in place”. The exception to this would be: i.) during an emergency when the person would require a safety line and ii.) when a person is doing so under the provisions of a written plan.

A comment was received regarding 125-30 C. The commenter wanted to know how often the stockpile plan would need to be reviewed and what record keeping would be necessary. The department clarified the language to inform the regulated community that the plan review was necessary when an individual “first” works on stockpiles. The record will be required to be kept for 2 years.

Two commenters questioned the frequency and having to maintain contact with operators around stockpiles (125-30 D.). The department agreed this needed clarification. The language was removed and amended in 125-30 A. to read “communication shall be maintained as necessary”.

One commenter expressed concern about the condition in 125-30 E (3) that requires there be two self-contained self-rescuers kept in the equipment cab (“submarine package”) and this be required where there is a potential of falling into a cavity. In response, the regulation requires the self-rescuers for stockpile operations with underlying feeders only and when there is a potential for an operator to be engulfed within a stockpile during an accident. The self-rescuers will provide oxygen to the equipment operator should the potential for suffocation arise.

Two comments were received on 125-30 E (4). There was concern regarding the necessity of remote control devices used by operators to stop loadout activities. The department felt the requirement should stay as it is written in the regulation. It adds to the safety of operators working around stockpiles with underlying feeders and could save lives.

Two comments were received on 125-30E (7). One respondent stated the use of gates on underlying feeders would not add to the safety of the operation. The commenter also stated that their feeders do not free flow, so the discharge of coal inadvertently would not occur. In response, the department clarified and changed the language so the condition would apply to stockpiles with underlying feeders that are free flowing only. A second comment referenced the cost to retrofit such equipment and wanted to know if there was another way to stop the flow of coal without the use of gates. The department is unaware of any additional methods that can be used to achieve the necessary results.

One commenter stated that the visual indicators (lights that indicate the feeders are in use) that are required in 125-30 E (10) may not be visible from all areas. The department feels the visual indicators should be visible from any area around the stockpile where equipment operators and

personnel are working. The requirement will add to safer working operations around stockpiles and stockpile operations.

Lastly, a concern was expressed regarding equal regulation between facilities that will be regulated by DMME and the facilities that are presently regulated by MSHA. The department has worked with MSHA on many different occasions and will continue to work with MSHA to ensure fair measures of enforcement.

Clarity of the Regulation

Please provide a statement indicating that the agency, through examination of the regulation and relevant public comments, has determined that the regulation is clearly written and easily understandable by the individuals and entities affected.

The Department of Mines, Minerals, and Energy, through examination of the regulation and relevant public comments has determined that this regulation is clearly written and easily understandable by the individuals and entities affected.

Periodic Review

Please supply a schedule setting forth when the agency will initiate a review and re-evaluation to determine if the regulation should be continued, amended, or terminated. The specific and measurable regulatory goals should be outlined with this schedule. The review shall take place no later than three years after the proposed regulation is expected to be effective.

The Department of Mines, Minerals, and Energy expects to publish the final version of the Regulations Governing Coal Stockpiles and Bulk Storage and Handling Facilities in December of 2003. According to the most recent applicable Executive Order, EO 21 (2002), the regulation will be reviewed and re-evaluated to determine if the regulation should be continued, amended, or terminated no more than 4 years from the effective date (1/2004), unless requested earlier by the Counselor of the Governor.

The specific and measurable goals of the review will include a determination of regulatory effectiveness. This process will begin with periodic review notification to the public for comments through the Regulatory Town Hall for a minimum of 21 days. No later than 90 days from the close of the public comment period, the agency will submit its report for Executive Review through the Town Hall along with its recommendation to keep as is, amend or to terminate the regulation.

If the decision is to amend the regulation, the Notice of Regulatory Action will be published in the Virginia Register to begin the regulatory process.

Family Impact Statement

Please provide an analysis of the proposed regulatory action that assesses the potential impact on the institution of the family and family stability including the extent to which the regulatory action will: 1) strengthen or erode the authority and rights of parents in the education, nurturing, and supervision of their children; 2) encourage or discourage economic self-sufficiency, self-pride, and the assumption of responsibility for oneself, one's spouse, and one's children and/or elderly parents; 3) strengthen or erode the marital commitment; and 4) increase or decrease disposable family income.

The regulation is essential to protect workers by preventing problems, accidents and fatalities in work that is inherently dangerous if not properly controlled. Improper equipment, procedures, conditions, and actions are a significant cause of injuries and fatalities of workers on mine sites where underlying coal feeders are used to handle coal and materials.

The regulation governs working conditions and procedures at coal mines where bulk material is handled and stored. A safe work environment and work practices reduces accidents that may result in reduced family income and increased family stress. Reducing accidents decreases these factors and has positive family impact. Ensuring that workers and operators know how to perform their jobs safely and efficiently has a generally positive effect in areas around coal mines through protection of the public health, safety and welfare from adverse effects of mining operations. The regulation has no effect on family formation, stability, or autonomy.